

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) In a process for crosslinking a polyolefin polymer which includes grafting a silane material which [can be] is described by the formula $R-Si-R'_3$, where R is an ethylenically unsaturated group, and R' is a hydrolyzable group, onto the polyolefin based polymer in the presence of a free radical generating initiator material, the improvement comprising:

(a) using an effective molar ratio of silane material to free radical of 45:1 or greater in the grafting reaction and

(b) forming the polyolefin polymer into a fabricated article selected from the group consisting of film fiber, foam, molded articles and wire and cable coating, and

(c) applying a material to the fabricated article which is capable of catalyzing a hydrolysis reaction between the silane moieties grafted to the polymer and moisture.

2. (original) The process of Claim 1 wherein the effective molar ratio of silane material to free radical is greater than 50:1.

3. (original) The process of Claim 1 wherein the free radical generating initiator material is a peroxide material.

4. (original) The process of Claim 1 further comprising contacting the grafted polyolefin material with moisture under conditions suitable for forming chemical linkages between at least some silane moieties.

5. (original) The process of Claim 1 further comprising limiting the level of alkoxy radical moieties used in the grafting reaction to less than 500 micromoles per 100 grams of polymer.

6. (withdrawn)

7. (withdrawn)

8. (withdrawn)

9. (original) The process of Claim 3 wherein the silane, peroxide and polymer are mixed thoroughly prior to initiating the grafting reaction.

10. (currently amended) The process of Claim 1 wherein the grafting reaction is carried out using an extruder and the temperature profile of the extruder is maintained such that the silane, peroxide and polymer are mixed thoroughly prior to initiating the grafting reaction.

11. (original) The process of Claim 1 wherein the grafted silane level is less than 3 percent by weight in the grafted polymer.

12. (currently amended) The process of Claim 1 wherein the grafted silane level is less than 2 percent by weight in the grafted polymer.

[delete.]

13. (original) The process of Claim 1 wherein the silane material is selected from the group comprising VTMOs and VTEOS.

14. (original) The process of claim 3 wherein the peroxide material is 2,5-dimethyl-2,5-di(tert-butylperoxy)hexane.

15. (original) The process of Claim 1 further comprising adding antioxidants.

16. (original) The process of Claim 15 wherein the antioxidants are dry blended or melt blended with the polymer after the grafting reaction.

17. (withdrawn)

18. (currently amended) A partially [Partially] crosslinked [polymer] fabricated article made according to the process of Claim 1.

19. (canceled)

20. (withdrawn)

21. (withdrawn)

22. (withdrawn)

23. (original) The process of Claim 1 wherein the polyolefin material has a melt index, as measured by ASTM D1238 condition E (190°C, 2.16 kg load), after grafting which is no lower than 80 percent of the melt index of the polyolefin material prior to grafting.

24. (original) The process of Claim 1 wherein the polyolefin material has a melt index, as measured by ASTM D1238 condition E (190°C, 2.16 kg load), after grafting which is no lower than 90 percent of the melt index of the polyolefin material prior to grafting.

25. (withdrawn)

26. (withdrawn)

27. (withdrawn)

28. (withdrawn)

29. (withdrawn)

30. (withdrawn)

31. (withdrawn)

32. (withdrawn).

33. (withdrawn)

34. (withdrawn).

35. (withdrawn).

36. (new) The method of Claim 1, wherein the fabricated article is a fiber and step c is accomplished using a spin finish applicator.

37. (new) The method of Claim 36 wherein the material capable of catalyzing the hydrolysis reaction is first mixed with a non-aqueous spin finish for the fiber.

38. (new) The method of Claim 1 wherein the material capable of catalyzing the hydrolysis reaction is a zirconate or titanate compound.

39. (new) The method of Claim 33 wherein the material capable of catalyzing the hydrolysis reaction is titanium (IV) bis(acetylacetonate) diisopropoxide; titanium (IV) tetrakis(2-ethyl-1,3-hexanediolate); or [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']tris(neodecanoato-O)zirconium.

40. (new) The method of claim 34 wherein the material capable of catalyzing the hydrolysis reaction is [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']tris-(neodecanoato-O)zirconium.